

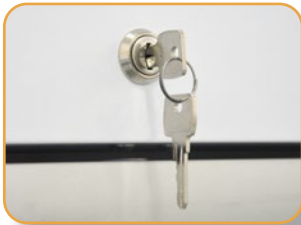


HP Series Laboratory Freezer

Esco HP Series Laboratory Freezers are designed for laboratory use offering superior product protection with long term reliability and exceptional product quality. Laboratory Freezers are generally used for storing non-volatile reagents and biological specimens for a longer period of time. The temperature ranges from -10°C to -40°C .

Door Lock

- Provides additional security for expensive samples and reagents from unauthorized users



Internal LED Lighting

- Save up to 70% power with less heat exposure to precious samples. LED lighting also has a longer lifetime than fluorescent or incandescent lighting



*for HF2 models only

Stainless Steel Interior

- Avoids corrosion and protects your precious samples from contamination



Wheels

- Provided as a standard to make units easy to locate and move



Small Caster



Standard Caster

Controller

- Displays data about the unit and used to control temperature and other menu



Touchscreen Controller



Standard Controller

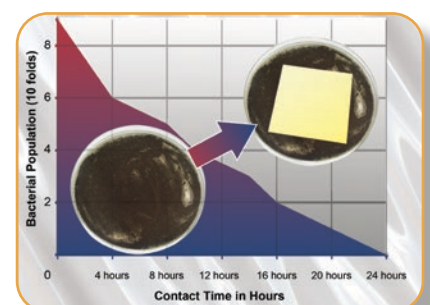
Solid Door

- Provides superior insulation. Door automatically closes under 90° when released to maintain temperature and to protect samples



Quality Esco Construction

- Electrogalvanized steel with white, oven-baked epoxy-polyester, anti-microbial, **ISOCIDE™** powder-coated finish to eliminate 99.9% of surface bacteria within 24 hours of exposure



HF2-400S-

Guide to Models, HP Series Laboratory Freezer

H F 2 - 140 -												
Product Line	Code	Type	Code	Temperature Range	Code	Volume	Code	Controller	Code	Electrical Code	Code	
High Performance	H	Freezer	F	-10°C to -20°C (14°F to -4°F) for 140 L units	2	128 L (4.5 cu. ft)	140	Standard	S	220-240 VAC, 50 Hz	1	
				347 L (12.3 cu. ft)		400	Touchscreen	T	110-120 VAC, 50/60 Hz	2		
				-10°C to -25°C (14°F to -13°F) for 400 / 700 / 1500 L units		620 L (21.9 cu. ft)	700			220-240 VAC, 60 Hz	3	
						1355 L (47.9 cu. ft)	1500					

General Specifications, HP Series Laboratory Freezer

Model	220-240 VAC, 50 Hz	HF2-140S-1 2130005	HF2-400S-1 2130006	HF2-400T-1 2130016	HF2-700S-1 2130007	HF2-700T-1 2130017	HF2-1500S-1 2130008	HF2-1500T-1 2130018
	110-120 VAC, 50/60 Hz	HF2-140S-2 2130033	HF2-400S-2 2130035	HF2-400T-2 2130037	HF2-700S-2 2130039	HF2-700T-2 2130041	HF2-1500S-2 2130043	HF2-1500T-2 2130045
	220-240 VAC, 60 Hz	HF2-140S-3 2130032	HF2-400S-3 2130034	HF2-400T-3 2130036	HF2-700S-3 2130038	HF2-700T-3 2130040	HF2-1500S-3 2130042	HF2-1500T-3 2130044
Capacity		128 L (4.5 cu. ft)	347 L (12.3 cu. ft)		620 L (21.9 cu. ft)		1355 L (47.9 cu. ft)	
Temperature Range		-10°C to -20°C (14°F to -4°F)	-10°C to -25°C (14°F to -13°F)					
Temperature Uniformity Range		±3°C (37.4°F)						
Ambient Temperature		N (+16°C to +32°C)						
Door		1 solid door, steel white color with aluminum handle and powder-coated with ISOCIDE™					2 solid doors, steel white color with aluminum handle and powder-coated with ISOCIDE™	
Alarms		Open door, High/Low temperature, Clogged condenser filter						
Controller		Standard Controller with 0.1°C resolution, password protected		Touchscreen Controller	Standard Controller with 0.1°C resolution, password protected	Touchscreen Controller	Standard Controller with 0.1°C resolution, password protected	Touchscreen Controller
Defrost		Intelligent Automatic						
Warranty		2 years						
Certifications		CE Mark						
Door Lock		Key Lock		Electronic Lock	Key Lock	Electronic Lock	Key Lock	Electronic Lock
Dry Contacts Alarm		Dry contact to connect to remote alarms						
Lighting		LED						
Wheels		Small Caster (3.5 cm)			Standard Caster (10.5 cm)			
CFC and HCFC Free Refrigerant		R452A						
Heat Emission		333 W	862 W		937 W		1515 W	
Power Consumption (kW/24H)		5.2	8.6		12.1		14.3	
Power Consumption (Running Mode)		9.2 kW/24H	10 kW/24H		11 kW/24H		14 kW/24H	
Power Consumption (Standby)		50 W						
Interior Walls		AISI 304 Stainless Steel						
Default Number of Shelves		2 shelves	4 shelves				8 shelves	
Maximum Number of Shelves/ Drawers		3/3	5/7		6/7		12/14	
Typical Noise Level (<dBA)		43	49		52		55	
Internal Dimensions (W x D x H)		440 x 516 x 560 mm (17.3" x 20.3" x 22.0")	500 x 493 x 1405 mm (19.7" x 19.4" x 55.3")		600 x 686 x 1505 mm (23.6" x 27.0" x 59.3")		1300 x 690 x 1510 mm (51.2" x 27.2" x 59.4")	
Type of Insulation		Polyurethane Foam						
Insulation Thickness		40 mm (1.6")	60 mm (2.4")				70 mm (2.8")	
External Dimensions (W x D x H)		520 x 635 x 835 mm (20.5" x 25.0" x 32.9")	600 x 655 x 1955 mm (23.6" x 25.8" x 77.0")		720 x 825 x 2050 mm (28.3" x 32.5" x 80.7")		1440 x 820 x 2050 mm (56.7" x 32.3" x 80.7")	
Net Weight		58 Kg (127.9 lbs)	145 Kg (319.7 lbs)		148 Kg (326.3 lbs)		229 Kg (504.9 lbs)	
Shipping Weight		82 Kg (180.8 lbs)	151 Kg (332.9 lbs)		179 Kg (394.6 lbs)		266 Kg (586.4 lbs)	
Shipping Volume		1.03 m³ (36.3 cu. ft)	1.19 m³ (42.0 cu. ft)		1.72 m³ (60.7 cu. ft)		3.02 m³ (106.7 cu. ft)	
Shipping Dimensions (W x D x H)		630 x 730 x 2250 mm (24.8" x 28.7" x 88.6")	730 x 760 x 2150 mm (28.7" x 29.9" x 84.6")		840 x 920 x 2220 mm (33.1" x 36.2" x 87.4")		1560 x 900 x 2150 mm (61.4" x 35.4" x 84.6")	

Guide to Models, HP Series Laboratory Freezer

H F 3 - 4 0 0 -											
Product Line	Code	Type	Code	Temperature Range	Code	Volume	Code	Controller	Code	Electrical Code	Code
High Performance	H	Freezer	F	-20°C to -40°C (-4°F to -40°F)	3	360 L (12.7 cu ft)	400	Standard	S	220-240 VAC, 50 Hz	1
						544 L (19.2 cu. ft)	700	Touchscreen	T	110-120 VAC, 50/60 Hz	2
										220-240 VAC, 60 Hz	3

General Specifications, HP Series Laboratory Freezer

Model	220-240 VAC, 50 Hz	HF3-400S-1 2130009	HF3-400T-1 2130019	HF3-700S-1 2130010	HF3-700T-1 2130020
	110-120 VAC, 50/60 Hz	HF3-400S-2 2130047	HF3-400T-2 2130049	HF3-700S-2 2130051	HF3-700T-2 2130053
	220-240 VAC, 60 Hz	HF3-400S-3 2130046	HF3-400T-3 2130048	HF3-700S-3 2130050	HF3-700T-3 2130052
Capacity		360 L (12.7 cu. ft)		544 L (19.2 cu. ft)	
Temperature Range		-20°C to -40°C (-4°F to -40°F)			
Temperature Uniformity Range		±4°C (39.2°F)			
Ambient Temperature		C (+10°C to +25°C)			
Door		1 solid door, steel white color with aluminum handle and powder-coated with ISOCIDE™			
Alarms		Open door, High/Low temperature, Clogged condenser filter			
Controller		Standard Controller with 0.1°C resolution, password protected	Touchscreen Controller	Standard Controller with 0.1°C resolution, password protected	Touchscreen Controller
Defrost		Intelligent Automatic			
Warranty		2 years			
Certifications		CE Mark			
Door Lock		Key Lock	Electronic Lock	Key Lock	Electronic Lock
Dry Contacts Alarm		Dry contact to connect to remote alarms			
Wheels		Small Caster (3.5 cm)		Standard Caster (10.5 cm)	
CFC and HCFC Free Refrigerant		R452A			
Heat Emission		1320 W		2103 W	
Power Consumption (kW/24H)		13.8		14.2	
Power Consumption (Running Mode)		11 kW/24H		16 kW/24H	
Power Consumption (Standby)		50 W			
Interior Walls		AISI 304 Stainless Steel			
Default Number of Shelves		4 shelves			
Maximum Number of Shelves/Drawers		6/6		7/7	
Typical Noise Level (<dBA)		50		60	
Internal Dimensions (W x D x H)		510 x 600 x 1255 mm (20.1" x 23.6" x 49.4")		600 x 686 x 1320 mm (23.6" x 27.0" x 52.0")	
Type of Insulation		Polyurethane Foam			
Insulation Thickness		80 mm (3.1")		60 mm (2.4")	
External Dimensions (W x D x H)		670 x 825 x 1940 mm (26.4" x 32.5" x 76.4")		720 x 860 x 2050 mm (28.3" x 33.9" x 80.7")	
Net Weight		145 Kg (319.7 lbs)		142 Kg (313.1 lbs)	
Shipping Weight		184 Kg (405.7 lbs)		221 Kg (487.2 lbs)	
Shipping Volume		1.61 m³ (56.9 cu. ft)		1.72 m³ (60.7 cu. ft)	
Shipping Dimensions (W x D x H)		800 x 920 x 2190 mm (31.5" x 36.2" x 86.2")		840 x 920 x 2220 mm (33.1" x 36.2" x 87.4")	

OPTIONS AND ACCESSORIES



Shelf Kits (SK_)

Atoxic, plastic-coated steel, supported by anti-tilt clips. It is for additional space inside your chamber where you can place your samples. It also provides a good support for your samples to prevent damage and maintain organization of samples.



Drawer Kits (DK_)

A drawer extractible on telescopic slides, adjustable in height, bottom made of painted stainless steel, beehive structure type, supplied with adjustable dividers made of polypropylene, front is fitted with an ergonomic aluminum handle, for the storage of samples in a more convenient and organized way.



Digital Monitor (DM_)

An independent visual/acoustic alarm and recording system, with an accuracy of 0.1°C due to the PT100 probe used for temperature detection. It will take over alarm failures, together with standard rechargeable batteries that record event such as unauthorized personnel.



Access Port (AP_)

A 15 mm or 35 mm diameter hole that will be placed at the back of the unit, closed with a white plastic cap, used for the access of additional probes inside the chamber.



Basket Kit (BK1)

Made of stainless steel that provides an anti-corrosion environment for your samples. It is mounted on anti-tilt side slides and can be glided outside the chamber for the purpose of easy access to samples.



Chart Recorder

The chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of chamber temperature.

Model	Item Code	Description
SK1	1330063	Shelf Kits for HR1-140, HF2-140 (Standard and Touchscreen models)
SK2	1330064	Shelf Kits for HR1-400, HF2-400 and HC6-400 (Standard and Touchscreen models)
SK3	1330065	Shelf Kits for HR1-700, HF2-700, HF3-700, HC6-700, HR1-1500 and HF2-1500 (Standard and Touchscreen models)
SK4	1330066	Shelf Kits for HF3-400 (Standard and Touchscreen models)
DK1	1330067	Drawer Kits for HR1-140, HF2-140 (Standard and Touchscreen models)
DK2	1330068	Drawer Kits for HF2-400, HR1-400 and HC6-400 (Standard and Touchscreen models)
DK3	1330069	Drawer Kits for HR1-1500, HF2-1500, HR1-700, HF2-700 and HC6 700 (Standard and Touchscreen models)
DK4	1330070	Drawer Kits for HF3-400 (Standard and Touchscreen models)
DK5	1330071	Drawer Kits for HF3-700 (Standard and Touchscreen models)
DM1	1330072	Backup battery + Digital Monitor + PT100 probe for temperature monitoring and recording during power failure. (Single Chamber, Touchscreen Models)
DM2	1330073	Backup battery + Digital Monitor + PT100 probe for monitoring and recording during power failure. (Dual Chamber, Touchscreen Models)
AP15	5171092	15 mm Access Port with inner and outer wall cover (Standard and Touchscreen models)
AP35	1330075	35 mm Access Port with inner and outer wall cover (Standard and Touchscreen models)
BK1	1330076	Stainless Steel Basket Kit for HR1-700, HR1-1500, HF2-700, HF2-1500, HF3-700 and HC6-700S (Standard and Touchscreen models)
Backup Battery	1330127	Standard backup battery for temperature monitoring during power failure (Standard Models)
4-20 mA	1330129	4-20 mA Output (Touchscreen models)
GSM	1330216	GSM Module (Touchscreen models)
Chart Recorder	1330185	Chart Recorder for all models (Standard and Touchscreen models)
IQOQ	9010179	Installation Qualification Operation Qualification for all models